



UNIVERSITY OF
MARYLAND

GRADUATE PROGRAM IN ANIMAL SCIENCES

HANDBOOK

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Introduction

The Graduate Program in Animal Sciences is an interdisciplinary and interdepartmental program administered by the Department of Animal and Avian Sciences (ANSC). It involves faculty from the Department of Animal and Avian Sciences and the Department of Veterinary Science, Virginia-Maryland Regional College of Veterinary Medicine, and scientists from nearby institutions, including U.S.D.A.'s Beltsville Agricultural Research Center, the Patuxent Wildlife Center, and the National Zoological Park. The Program offers graduate study leading to the Master of Science and Doctor of Philosophy degrees in Animal Sciences. A Director selected from amongst the faculty on a term basis administers the Program. Presently, Dr. Inder K. Vijay, Professor, Department of Animal and Avian Sciences, is the Director. Dr. Vijay's email address is ivijay@umd.edu. Currently, there are ~30 members of the graduate faculty from the two participating departments and five adjunct faculty from area institutions. The Program Administrative Assistant is Edith Silviou. Her office is located in Room 2113 in the Animal Sciences Center. Edith's email address is esilviou@umd.edu.

Admission into the Graduate Program

The Graduate Program in Animal Sciences (ANSC) admits students on a competitive basis from around the world. For selection, the primary criteria are the merits of the candidate as evidenced by the overall evaluation of the documents in the application package. Where possible, a candidate may be invited for a visit to the campus and an interview by the Program faculty. A strong background in animal or poultry science or one of the biological sciences, e.g., nutrition, physiology, biology, biochemistry, cell-molecular biology, genetics, microbiology, immunology, virology, or their sub-disciplines is required.

Applicants should familiarize themselves with the requirements, policies, and procedures of the University of Maryland Graduate School. They may do so by referring to the Graduate School Catalog, which is available at <http://www.vprgs.umd.edu/publications>. The application should contain the following:

1. An application form with the vital data on the candidate.
2. Statement of Purpose summarizing the candidate's goals, intentions, and experiences.
3. Results of the General Record Examination (GRE) - General Aptitude Test.
4. Official transcripts of all previously attended post-secondary colleges and universities.
5. Three letters of recommendation.
6. Certified copies of previously earned diploma(s) and degree(s) and, in the case of international students, results of the Test of English as a Foreign Language (TOEFL). It is in the interest of international students to take the Test of Spoken English (TSE). It is a requirement for consideration for a teaching assistantship.
7. The application fee of \$50; an application without the fee cannot be considered.

Documents that cannot be submitted online, e.g., letters of recommendation, should be sent to the Graduate Program in Animal Sciences, Department of Animal and Avian Sciences, University of Maryland, College Park, Maryland 20742 U.S.A.

A minimum grade point average (GPA) of 3.0/4.0 in undergraduate study is required for consideration of an application. When an institution uses a different scale, the Program Office or, in the case of international students, the Office of International Education Services will normalize the grade point average to a scale of 4.0. For international applicants, a minimum score of 550/677 or 213/300 on the TOEFL is a requirement of the Graduate School. The Program may request advice from the Office of International Education Services on the quality of education of the institutions previously attended by a candidate and the overall credentials of an international applicant.

Applicants must indicate the need for financial assistance or provide documentation of adequate financial support for their studies. There are several types of financial support available within

the Program. These include fellowships given to the Program by the Graduate School and graduate teaching and research assistantships available within the Program. It is highly advised that the applicant should, wherever possible, identify one or more faculty in the Statement of Goals and Intent who can serve as a potential advisor to guide research in his/her area of interest. A profile of individual faculty and their ongoing research programs can be viewed at sites linked to ansc.umd.edu/di.htm and www.vetmed.umd.edu/allstaff.htm.

The Program no longer mails out paper applications. All candidates are directed to apply online at www.vprgs.umd.edu/. The applicants are advised to follow all the instructions; incomplete applications will delay consideration. The application fee of \$50 should be remitted to the Graduate School, University of Maryland, College Park, Maryland 20742 U.S.A.

The Graduate Education Committee starts to review applications on a rolling basis after the deadline for the fall and spring semesters (given elsewhere in the Handbook). The Director then considers the candidates who have been recommended positively by the committee for acceptance. In consultation with the Chair of either the Department of Animal and Avian Sciences or the Department of Veterinary Science, Virginia-Maryland Regional College of Veterinary Medicine (VMRCVM), as appropriate, and if funds are available, an assistantship offer is made to the accepted candidate. Simultaneously, the Dean of the Graduate School is notified for issuance of the letter of admission. In general, the Dean concurs with the decision made at the Program level and sends a formal letter offering admission to the candidate. For international applicants, after the Dean has issued the letter of admission, the Office of International Education Services is notified to process the Immigration and Naturalization Form I-20 and mail it to the candidate as well as to the U.S. Embassy in the country of the candidate. Upon presentation of the I-20 papers to the U.S. Embassy or its regional consulate in his/her country, a visa is issued to the student for travel to the U.S.A.

Graduate Education Committee

The Graduate Education Committee (GEC) consists of seven faculty members. Members must be Associate or Regular Graduate Program faculty. Four members are appointed by the Chair of the Department of Animal and Avian Sciences in consultation with the Director, and two members are appointed by the Chair of the Virginia-Maryland Regional College of Veterinary Medicine (VetMed). The Director of the Graduate Program in Animal Sciences serves as the seventh member and the chair of the committee. The members serve a three-year appointment on a staggered basis but may be reappointed. The committee has the following responsibilities:

- Develops curriculum and policy; obtains approval of the faculty and implements the same.
- Serves as the admissions committee to screen and evaluate completed applications and recommends candidates to the Director for admission and for financial assistantships.
- Approves the Graduate Advisory Committees of the students.
- Reviews the progress of the students individually on an annual basis; approves all matters of an academic nature such as a change of advisor or member of the Graduate Advisory Committee, attendance at seminars, and other matters of a disciplinary nature.
- Evaluates all students on a competitive basis and selects a student for the annual “Most Outstanding Student of the Year” award.

Master of Science Degree Requirements

A minimum of 30 semester hours including six hours of thesis research credit (ANSC 799) and a thesis are required for the degree of Master of Science. Of the 24 hours required in graduate courses, no less than 12 must be earned in the major subject. No less than 12 credits must be from courses numbered 600 or above. Students must maintain an overall grade point average (GPA) of 3.0 or better in courses taken for graduate credit.

In addition to the Graduate School requirements, the following program requirements apply to students pursuing an M.S. degree:

- All M.S. candidates must demonstrate satisfactory course experience in biochemistry and statistics.
- All students must fulfill the ANSC 698, Graduate Seminar (described elsewhere).
- No more than two credits of special problems (ANSC 699) are acceptable as part of the 24 required course credits.
- During the student's first semester, the student and his/her advisor will recommend at least two members of the graduate faculty to serve as the student's Graduate Advisory Committee (Appendix A).
- The Advisory Committee and the student must meet before the end of the second semester to approve the student's Plan of Study (proposed schedule of courses), signed by the student and his/her Advisory Committee, and a thesis research proposal (Appendix A). Since the Plan of Study represents the course work contract between the student and the program, the student is expected to update and refile the Plan of Study whenever changes are necessary.
- The thesis will be presented in a public seminar followed by an oral examination as per regulations of the Graduate School. Notice must be posted one week prior to the seminar. The examining committee will reach one of the following decisions:
 - a. Pass, with a recommendation to pursue the Ph.D.
 - b. Pass, with a recommendation that the M.S. degree be terminal.
 - c. Fail, with a recommendation that the candidate be re-examined at a later date. This decision does not extend the Graduate School limit for the M.S. degree.
 - d. Fail, with the recommendation that the candidate should not be re-examined.

Doctor of Philosophy Degree Requirements

The Doctor of Philosophy degree is granted to a student only after sufficient evidence of high achievement in scholarship and creativity and demonstrated ability to engage in independent research. A minimum of 12 research credits is required. The degree is not awarded for the completion of course requirements no matter how successfully that may have been completed.

In addition to the Graduate School requirements, the following program requirements apply to students pursuing a Ph.D. degree:

- All Ph.D. candidates must also meet the course requirements for the M.S. degree.
- All students must meet the ANSC 698, Graduate Seminar requirements, as given elsewhere.
- During the student's first semester, the student and his/her advisor will recommend at least four additional members of the graduate faculty to serve on the student's Advisory Committee (Appendix A). Up to two scientists from outside institutions, e.g., USDA's Beltsville Agricultural Research Center, National Institutes of Health, Patuxent Wildlife Center, etc., may be appointed to the Graduate Advisory Committee. These appointments must satisfy the rules and regulations of the Graduate School.
- Before the end of the second semester, the student will submit to his/her Advisory Committee a dissertation research proposal (Appendix A).
- Teaching experience is mandatory for all students during their Ph.D. program (equivalent to 8-10 hours of effort per week during a single semester).
- During the second year of study for the Ph.D. degree (or after approximately 80 percent of the Plan of Study has been completed), a written examination and an oral comprehensive examination are required for advancement to candidacy. For the written examination, each member of the Graduate Advisory Committee submits one or more questions in the animal sciences area, defined in the broadest sense. The student is well advised to meet individually with every member of the committee and receive general guidance. It is expected that the individual members of the committee will submit questions that can be reasonably answered in a three-hour period. The mentor/major advisor receives the questions in advance and conducts the examination within a pre-announced one-week period. The student answers the question(s) for one member of the Graduate Advisory Committee on a given day. The examination may be open or closed book, as stipulated by the examiner. The student is expected to follow the Honor Code of the University and return the completed examination to his mentor. The individual components of the written examination are evaluated by the members of the committee who submitted their question(s).

After the written examination, the major advisor/mentor will schedule an oral examination. It is expected that a major part of the oral examination will focus on questions and issues arising out of the written examination, the ongoing dissertation

research of the student, and, to a lesser extent, the general knowledge and background that is deserving a pass for advancement to candidacy for the Ph.D. degree.

- Following the oral examination, the Advisory Committee must reach a decision regarding advancement to candidacy. The committee may recommend one of the following:
 - a. Passing the student with no conditions.
 - b. Passing the student with conditions, stating how and when these conditions must be met.
 - c. Failing the student.
- After completion of the research, the student will write a scholarly dissertation as per rules of the Graduate School. The dissertation will be presented in a public seminar. Notice of the seminar must be posted one week prior to the seminar. Also, the notice will be sent electronically to all the graduate students and the faculty in the Program.
- A dissertation defense examination follows a public seminar. The examination is a closed meeting. This examination will focus primarily on questions and issues arising out of dissertation research. It is expected that at this point there will be minimal necessity to test the student on background areas that should have been covered in formal courses and written and oral comprehensive examinations. The Dean of the Graduate School will designate one of the members of the Graduate Advisory Committee as his representative. The role and duties of the representative are defined by the Dean. His/her primary role is to oversee and ensure that the examination is conducted fairly and as per guidelines of the Graduate School.

ANSC Seminar Requirements

The Graduate Program holds a regular seminar during the academic year and special seminars during the summer period. Additionally, a number of related graduate programs on the campus also hold weekly and special seminars. The seminar requirements in ANSC are given below:

- M.S. students are required to take ANSC 698D *Developing Presentation Skills* (one credit) early in their studies and one credit of ANSC 698C *Recent Advances in Animal and Avian Sciences*.
- Ph.D. students are required to take a total of three credits of seminar, of which at least two must be ANSC 698C. The ANSC seminars will be taken in non-consecutive semesters. Registration for seminars outside of the ANSC Program must be discussed and approved by the student's Dissertation Advisory Committee in advance and documented with the Program Office for record keeping in the student's folder.
- The Seminars will be graded on the standard A/B/C/D/F grading system.
- Seminars will be approximately 20-25 minutes, with 5-10 minutes for questions (two seminars per session).
- The Seminar course will feature outside speakers scheduled approximately once a month, invited either by students or faculty. These seminars will cover the most recent advances in animal sciences by leading scientists within or outside the United States. They will be about 40-45 minutes long, with ample time for discussion and, as schedules allow, one-on-one interaction between the students and the speaker. Students are strongly encouraged to take advantage of this opportunity as they seek opportunities for additional graduate work (M.S. students) or postdoctoral research (Ph.D. students) and avenues for further professional advancement.
- The regular and adjunct faculty within the program will be scheduled into ANSC 698C to give a seminar on their ongoing research every 3-4 years.
- Students are expected to attend the weekly seminar in ANSC or another related graduate program during the academic year, regardless of whether they are signed up for credit. This may be monitored at the discretion of the instructor-in-charge.

Graduate Student Deadlines

Program Deadlines:

By the End of the 1 st Semester	Advisory Committee Form Chair, Advisory Committee Form
By the End of the 2 nd Semester	Plan of Study Form Thesis/Dissertation Research Proposal Form
By April 15, annually	Self-Evaluation Form on Research Project Advisor's Annual Report Report of Graduate Advisory Committee

Graduate School Deadlines:

All Graduate Degree Candidates:	Must submit Application for Graduation to the Registrar's Office.
Doctoral Students:	Must submit Nomination of Dissertation Committee Form to the Graduate School at least 6 weeks before the scheduled defense.
Master's Thesis Students:	Must submit Approved Program Form and Nomination of Thesis Committee Form to the Graduate School at least 6 weeks before the scheduled defense.
Doctoral Students:	Must submit 2 copies of Dissertation and Report of Examining Committee Form to the Graduate School.
Master's Thesis Students:	Must submit 2 copies of Thesis and Report of Examining Committee Form to the Graduate School.

The Graduate School deadlines can be found in the following locations:

1. Online at www.vprgs.umd.edu/publications
2. In the Schedule of Classes
3. On the Graduate Program's Bulletin Board (Outside of Room 2130)
4. On the Door to the Graduate Program's Administrative Office (Room 2113)



2002-2004 Deadlines for Graduate Students

	Fall 2003	Spring 2004	Summer 2004
All Graduate Degree Candidates: Last day to submit Application for Graduation to the Registrar's Office for graduation for that semester	September 15	February 6	July 16
Doctoral Students: Last day to submit Nomination of Dissertation Committee Form to the Graduate School, 2123 Lee Bldg. (Committee form must be submitted at least 6 weeks before the scheduled defense)	September 19	February 16	June 10
Master's Thesis Students: Last day to submit the Approved Program Form and Nomination of Thesis Committee Form to the Graduate School, 2123 Lee Bldg. Committee form must be submitted at least 6 weeks before the scheduled defense Master's Non-Thesis Students: Last day to submit the Approved Program Form to the Graduate School, 2123 Lee Bldg.	October 9	March 9	July 19
Doctoral Students: Final date to submit 2 copies of Dissertation and Report of Examining Committee Form to the Graduate School, 2123 Lee Bldg.	December 4	April 30	August 5
Master's Thesis Students: Final date to submit 2 copies of thesis and Report of Examining Committee Form to the Graduate School, 2123 Lee Bldg. Master's Non-Thesis Students: Final date to submit Certification of Master's Degree Without Thesis Form to the Graduate School, 2123 Lee Bldg.	December 11	May 7	August 12

Kindly read the UMCP Schedule of Classes for any changes in these deadlines. In addition, check with the graduate program in which you are enrolled for applicable deadlines. This deadline date form precedes all other deadline dates. Dates established by the Diploma Office are subject to change. Students who fail to meet posted deadlines should contact Graduate Enrollment Management Services immediately for assistance at (301)405-0376 or grschool@deans.umd.edu.

Revised November 2002

Guidelines for the Submission of Thesis and Dissertation

Thesis and dissertation should be submitted to the Graduate School (www.vprgs.umd.edu/) online only at dissertations.umi.com/umd. This address also contains the new edition of the Thesis and Dissertation Style Guide. The student should go to this site, click on the button 'Guidelines for Students', and go through Chapter 4 for a description of the electronic, online submission protocol. The new edition of the Thesis and Dissertation Style Guide is also located on the Graduate School website at www.vprgs.umd.edu/publications.

Graduate School Catalog

The latest edition of the Graduate School Catalog is located at www.vprgs.umd.edu/catalog. It contains comprehensive information on programs, courses, policies, and protocols of the Graduate School and has direct links to the often-used sections containing details regarding graduate education at the University of Maryland, College Park.

Regulatory Issues

Animal Care and Use

Campus and federal requirements very clearly stipulate that any research project involving human subjects or animals must be approved by the appropriate campus committee **PRIOR** to the initiation of the research. The campus committee that governs the use of animals for teaching and research purposes is the Institutional Animal Care and Use Committee (IACUC). Approval by the campus committee is also a stipulation for grant applications to USDA, NIH, NSF, and other granting agencies that require at the time of grant submission or at the time the grant is funded that any projects involving humans or animals be approved by the appropriate campus committee. Further, **NO** vertebrate animals may be used under campus auspices without prior approval of the IACUC. Examples of animal activities requiring IACUC approval include the following:

1. Animal research conducted on campus or on MAES facilities.
2. Animal research conducted in the field by UM faculty, graduate students, or staff under the auspices of the campus.
3. Animal research conducted by UM graduate students at other institutions (e.g., USDA, NIH, Patuxent Wildlife Center) as part of completion of a graduate degree.
4. Animal research conducted at another institution as part of a joint contract with a UM faculty member.
5. Animal activities used in the teaching of UM undergraduate and graduate courses.

Compliance with IACUC and its regulations is **MANDATORY**. Therefore, it is imperative that the graduate student discusses both department and university requirements and policies/procedures with their research advisor well in advance of proposed animal-related projects or course requirements for animal use in order to obtain the appropriate approvals.

Prior to graduation, all Animal and Avian Sciences graduate students must attend the UM Animal Users Training Program. Students who plan to conduct research with animals are required to attend the program prior to planning their animal research. The program is a one-day lecture offered in the fall and spring semesters (or when needed) by the Director of Laboratory Animal Care. Prior to submitting an Animal Use Protocol Form for review by the campus IACUC, the student should visit with the Director of Laboratory Animal Care to make sure all forms are filled out correctly and that all information is up-to-date. Dr. Chris Romines is the department's veterinarian and oversees animal research in the Animal Wing. It is also important that the student makes an appointment with Dr. Romines prior to submitting a proposal to make sure that facilities will be available and that the protocol contains appropriate documentation for use of drugs or pain relievers if this is required for research.

For more information concerning the Animal Care and Use Program, the student may call 301-405-4921 or visit the website at www.umresearch.umd.edu/iacuc/index.html. The necessary

forms, guidelines and regulations, and dates when the IACUC meets to review proposals are given here. The student should note the submission deadlines for each month's review of proposals and make sure to submit their proposal before this date.

Radiation Safety and Chemical Hygiene in the Laboratory

All students, upon arriving in the department, must take part in either seminars or online training courses offered by the Department of Environmental Safety (DES) for work in the laboratory. Not all the training courses are required, so students should consult with their advisor or laboratory technician to find out what types of laboratory hazards they will encounter and how to work safely in the lab environment. Prior to working in the lab, the technician should have students read and sign the Laboratory Safety Checklist sheet, which affirms that they have been made aware of and fully recognize the lab hazards, where to get help, how to dispose of various materials appropriately, and who to contact in the case of an emergency. Further information can be obtained from Dr. Brian Bequette, the department's Compliance Officer, at 301-405-8457 or by going online to the DES website at www.inform.umd.edu/des. Here students can find dates when seminars are held, online training courses, and forms. It is recommended that students first read the information for **Laboratory Workers** on the DES website prior to undertaking any procedures in the lab. The site also contains information and training videos documenting handling and disposal procedures for radioactive materials and biological wastes (bacteria, viruses, etc.). If students are in doubt about any hazardous procedure or material, it is best to consult with the lab technician, the department's Compliance Officer, or the website prior to proceeding further. Always be **SAFE and SURE!**

Motor Pool and Driver Training

Many graduate students will be teaching assistants one semester out of the year, and in some courses it may be necessary for them to use a university van to transport students on field trips. Teaching assistants should consult with the professor of the course to find out if they will need to take the university's driving test. If so, the Van Driver Training for Passenger Vans may be taken online at the DES website at des.umd.edu/Training/van.cfm. The course instructor will pay the mandatory \$20 to take the online training and test. Students must pass this test before they can drive any university van that carries 15 or more passengers.

Advising and Mentoring

Given the diverse scope of research activities in several focal areas, at the time of admission the Program tries to match candidates with one or more faculty who would be best suited to the background and research goals of the selected applicants. In the letter offering a graduate teaching cum research assistantship, the Director and the Chair of the department providing the assistantship assign an appropriate faculty member who would serve as the student's advisor at the start of education in the Program. As stated elsewhere, the Dean of the Graduate School sends the official letter of admission to the selected applicants.

There is a period of several months between the offer of admission and actual enrollment of a student into the Graduate Program. After a candidate has accepted the offer, the Director puts him/her and the faculty advisor in touch with each other. This is designed to encourage interaction between the two parties and explore mutual research interests early on and before the arrival of the 'student'. The Program realizes that a student may find that his/her research interests do not match the initial advisor and may want to select another advisor with the approval of the Graduate Education Committee and the Director of the Program. All graduate students, whether working for the M.S. or Ph.D. degree, are advised to finalize their advisor before the end of two semesters (for those admitted in the fall semester) or before the start of the fall semester (if admitted in the previous spring semester) for a timely completion of their degrees.

The student and the advisor together propose a Graduate Advisory Committee and submit the same on the specified form for approval by the Graduate Education Committee and endorsement by the Director before the end of two semesters of entry into the Program.

The student and the advisor work out a project for research toward the M.S. or Ph.D. degree as soon as possible. A Research Proposal and a Plan of Study must be presented to the Graduate Advisory Committee for approval and routed to the Graduate Education Committee at the end of the second semester and no later than the beginning of the third semester. After the Graduate Education Committee has endorsed the Research Proposal and the Plan of Study, the documents become a record in the Program Office. It is recognized that sometimes a Research Proposal may require a major shift in direction to provide a productive lead. In such circumstances, a revised proposal, duly approved and endorsed by the above committees, should be deposited in the Program Office. It should be emphasized that a delay or delinquency in the submission of the Plan of Study and the Research Proposal within the stipulated time may adversely affect and risk the student being put on Academic Probation. Should this happen, the student will be notified and asked to remove the deficiency within one semester or risk dismissal.

It is worth reminding that, more often than not, a research project takes longer to complete than initially anticipated. The student and the advisor along with the Graduate Advisory Committee should continually monitor the progress and work diligently to achieve the goal side by side with fulfillment of all other requirements for completion of the degree. It is at this point that the advisor assumes the responsibility of a mentor. The role of a mentor is a matter of much philosophical discussion; suffice it to say that it represents the epitome of a true relationship between a *guru* and a *disciple* at the highest order. It is a very individualistic relationship and may be summarized in a variation of the words of Anne Todd (www.vale.w-

sussex.sch.uk/contentpage) as thus: “The mentor is a critical friend. He/she supports, enables and facilitates the personal and professional advancement of the student/trainee. The two act as a link, or interface with other professionals engaged in the fulfillment of the goals of the student/trainee. The mentor sets high professional standards and ethics as a ‘role model’ for the aspiring student/trainee.” Indeed, a graduate student may have more than one mentor, e.g., members of his/her Graduate Advisory Committee or even other professors in the Program. After the ‘rites of passage’, today’s student may be tomorrow’s colleague for the mentor. Ideally, it should build into a life-long relationship between the two. Today’s protégé will be tomorrow’s mentor!

Facilities of the Program

Facilities on the Campus of the University

The Department of Animal and Avian Sciences and the nearby Gudelsky Veterinary Center housing the Department of Veterinary Medicine, Virginia-Maryland Regional College of Veterinary Medicine, have extensive facilities consisting of faculty research laboratories, an animal holding area, a campus farm, an aquaculture facility, and the outlying research farms. Additionally, the department maintains two computer laboratories—a teaching laboratory with 30 workstations and a smaller laboratory exclusively for the use of graduate students on a 24-hour basis.

The research laboratories comprise nearly 28,000 square feet for bench work, averaging over 1,000 square feet per faculty member. Over 2,800 square feet of cold room and 2,000 square feet of freezer room are integral components of the research laboratories. The laboratories are fully equipped with state-of-the-art modern instrumentation and equipment for the entire range of research carried out by the faculty, e.g., research in biochemistry, cell-molecular biology, physiology, nutrition, behavior, virology, immunology, microbial pathogenesis, etc. Individual laboratories are fully self-standing units, yet there is free exchange between laboratories having shared and collaborative interests. All the laboratories and offices are networked to the campus server for direct Internet access.

Nearly 15,000 square feet of space is dedicated for animal holding in the Animal Wing of the Animal Sciences Center. This facility is capable of handling all kinds of animals such as different kinds of rodents, avian, fish for aquaculture, and large animals for research in separate rooms. A new aquaculture facility, adjoining Gudelsky Center, was recently built and is operational for research. The Animal Wing is under the care of staff and is supervised by a professional veterinarian. In addition, a new equine research unit has been established at the Central Maryland Research and Extension Center at Clarksville.

The department maintains a state-of-the-art confocal microscope. Other facilities, such as the Electron Microscopy Unit, DNA Sequencing Laboratory, etc., are available to the faculty and students as part of the Central Core Facilities on the campus.

Research Facilities Off Campus

1. University of Maryland/USDA-Beltsville Animal Biotechnology Facility

A new 11,000 square feet cooperative facility for research in animal biotechnology was recently established at the Beltsville Agricultural Research Center. It includes laboratories specifically designed for research in cloning and transgenic biology. It has its own self-standing laboratories and animal facilities for rodents and avian. ANSC faculty engaged in nuclear cloning, stem cell and transgenic biotechnology would use this facility to investigate genes of significance for the growth, development, and physiology of domestic animals.

2. Central Maryland Research and Education Center, Clarksville, Maryland

This 925-acre dairy and horse research center, located ~25 miles from the campus, houses 200 head of Holstein dairy cattle, including 110 milking cows, 90 head of young stock, and 20 horses. ANSC faculty engaged in nutrition, reproduction, physiology, herd health, behavior and management research conduct their experiments at this facility.

3. Applied Poultry Research Laboratory, Upper Marlboro, Maryland

This 202-acre facility is located approximately 20 miles from the campus. It is used for conducting research in nutrition, physiology, and behavior. There is another Poultry Behavior Research facility on the campus farm adjoining the Animal Sciences Center.

4. Wye Beef Cattle Research Center

This 450-acre facility is located on Maryland's Eastern Shore near Queenstown. It has 250 Registered Beef Angus Cows plus young stock and bulls that are direct descendants of Wye Angus herd. The facility is used to support research associated with beef cow-calf management, pasture management, and growth physiology.

Graduate Assistantships and Policy on their Award

Research in animal sciences entails concerted commitment and experimental work. Students are normally not admitted into the Program unless they have a sponsor; their own finances to support them; or the Program funds can provide financial assistance that will provide for subsistence, tuition, and university-subsidized health insurance.

Department of Animal and Avian Sciences and the Department of Veterinary Science, Virginia-Maryland Regional College of Veterinary Medicine, have similar assistantship programs. The following is a summary of the salient features of the policy within the Department of Animal and Avian Sciences:

1. The department's teaching and research assistantships have been pooled to create uniform 12-month graduate assistantships;
2. All recipients must contribute to the departmental mission in a teaching-related activity;
3. Proficiency in both written and spoken English is an important issue for the admission of international students;
4. Candidates reviewed by the Graduate Education Committee for financial support are ranked by the Department Chair and the Director and considered for assistantship after consultation with the Business Manager for budgetary provision;
5. M.S. students will receive support for two years, Ph.D. students for four years. The department may support a graduate assistant for an additional year at 50 percent of the stipend. The research advisor will provide support beyond that from his/her grants;
6. Assistantship duties would cover a broad range of assistance needs in the department. The Chair in consultation with the Undergraduate and Graduate Program Directors assigns assistantship duties. All Ph.D. students are required to assist in teaching duties for 8-10 hours for one semester as a requirement.

Annual Review of Graduate Students

The Graduate Education Committee (GEC) shall conduct a review of all students annually, near the end of the spring semester, to evaluate student progress toward the desired degree. Each graduate student will provide the following documents to the Director's office by April 15:

1. A completed form of self-evaluation on the research project.
2. Advisor's Annual Report, co-signed by both the advisor and the student.
3. Report of the Graduate Advisory Committee meeting.

The forms for the above reports are available in the Program office and also sent electronically to all the graduate students and faculty early in the spring semester. A copy of these forms is also included in Appendix A of the Handbook. The manner of the review will be determined by the GEC, but students should be aware that they might be asked to appear for an interview to answer questions regarding their progress and/or prepare a written report regarding their progress. The purpose of the review will be:

1. To determine if the student is making satisfactory progress toward the desired degree.
2. To determine if a change in graduate student status is warranted.
3. To determine if requirements as presented to the student in the Handbook are being met (participation in seminars, filing of a Plan of Study and Research Proposal, etc.).

Students on grade probation should be aware that the Program will not use grades or credits from ANSC 699 earned while on grade probation in calculating the GPA for removal from grade probation.

The student and the advisor will be informed in writing of any review findings that result in a change of student status.

Any student whose overall grade point average falls below 3.0 will go on "academic probation" in the program. Students may also be placed on "probation" for failure to make satisfactory progress toward the intended degree or for failing the comprehensive/prelim examination for the Ph.D. degree. The student and the mentor will be informed in writing to remove the academic probation. Failure of the student to correct the reason for probation status during the following semester will result in dismissal.

Annual Presentation Day

Each year during the first week in June, the department holds a Graduate Student Presentation Day (also known as ‘The One-Day Wonder’) when graduate students in the Department of Animal and Avian Sciences can show off their research findings to the department, campus, and local research institutions. This also gives students the opportunity to practice their presentation skills in front of a knowledgeable audience. All graduate students are required to give an oral presentation or a poster of their research. However, only those students presenting a completed piece of research and who will also be presenting this research at a scientific meeting will be eligible for travel awards. In 2003, the department awarded \$500 for first place and \$250 for second place in each of the oral and poster presentation categories. In addition, those students presenting poultry research are eligible to compete for the Shafner Award, which awards travel money of \$500 for first place and \$250 for second place in the combined categories of oral and poster presentations. Again, as with the department awards, students are only eligible for the Shafner Award if they plan to present the research at a scientific meeting. Students cannot win awards in both the department and Shafner Award categories, and again, the money can only be used to support travel to and accommodation at a scientific meeting.

Most Outstanding Student of the Year Award

Starting in 2003, the Graduate Program established the 'Most Outstanding Student of the Year' award program. The award for 2003 consisted of a \$400 unrestricted cash prize and a Citation. The cash component of the award will go to \$600 in the year 2004 and will keep stepping up at the rate of \$200 per year until it reaches \$1,000 in the year 2006. The funds for the award are derived from an endowment in the Department of Animal and Avian Sciences. As the endowment increases and grows in the future, it is anticipated that a portion of the earnings will be spun off to give a small scholarship to the winner to supplement the financial assistantship for recruiting outstanding candidate(s) into the Program. The supplement may be used in any way, e.g., purchase of books and supplies, payment towards security deposit for housing, or any other personal needs.

The Graduate Education Committee selects the winner of the award at the time of the Annual Review of all graduate students in May each year. The Program Office provides the following documents to the members of the committee on every student:

1. The master control sheet summarizing the overall performance and progress of the student.
2. The transcript summarizing the grades in all the courses taken to date.
3. The annual self-evaluation completed by the student.
4. The annual evaluation of the student by the mentor.
5. The report of the thesis/dissertation advisory committee.
6. Abstracts of papers presented at scientific meetings.
7. Other professional recognitions and awards such as prize(s) for papers presented at professional conferences.
8. Manuscripts accepted or papers published from thesis/dissertation research and any other meritorious features in a student's dossier.

Prior to the review in person with each student in the Program, the members of the GEC score individual students privately on a scale of 1.0 to 5.0, with 1.0 being the highest score. The members submit the scores confidentially to the Administrative Assistant in the Program Office, where they will be averaged. After the GEC has interviewed and reviewed all the students, each member of the committee is asked to rank the top three to five students in the Program. At this time, the average score on those students is revealed to the committee. After discussion, the most outstanding student is selected.

The winner's name is forwarded to the Chair of the Department of Animal and Avian Sciences with a short report highlighting the achievements of the student. Throughout the deliberations and until the announcement, the name of the winner is kept confidential. The Chair announces the winner and publicly recognizes the winner at the awards presentation session during the Annual Research Presentation Day.

Faculty

Regular Faculty in the Department of Animal and Avian Sciences

C. Roselina Angel ▪ Email: rangel@umd.edu ▪ Phone: 301-405-8494 ▪ Research Interest: Avian Nutrition

Scott M. Barao ▪ Email: smb@umd.edu ▪ Phone: 301-405-1394 ▪ Research Interest: Improving the Efficiency and Profitability of Livestock Production to Ensure Future Competitiveness

Brian J. Bequette ▪ Email: bbequett@umd.edu ▪ Phone: 301-405-8457 ▪ Research Interest: Ruminant Nutrition and Metabolism

Mary C. Christman ▪ Email: mcxman@umd.edu ▪ Phone: 301-405-8867 ▪ Research Interest: Biometrics

Larry Douglass ▪ Email: ldouglas@umd.edu ▪ Phone: 301-405-1405 ▪ Research Interest: Biometrics

Richard E. Erdman ▪ Email: erdman@umd.edu ▪ Phone: 301-405-8624 ▪ Research Interest: Regulation and Manipulation of Milk Fat Production in the Dairy Cow

Inma Estévez ▪ Email: iesteve@umd.edu ▪ Phone: 301-405-5779 ▪ Research Interest: Poultry Behavior and Welfare

Iqbal Hamza ▪ Email: hamza@umd.edu ▪ Phone: 301-405-0649 ▪ Research Interest: Cell Biology and Genetics of Micronutrient Metabolism

Thomas G. Hartsock ▪ Email: tah@umd.edu ▪ Phone: 301-405-1389 ▪ Research Interest: Swine Behavior Studies Focus on Production Problems

Carol L. Keefer ▪ Email: ckeefer@umd.edu ▪ Phone: 301-405-3933 ▪ Research Interest: Reproductive Biology and Embryology

Richard Kohn ▪ Email: rkohn@umd.edu ▪ Phone: 301-405-4583 ▪ Research Interest: Animal Nutrition Management

J. Lee Majeskie ▪ Email: majeskie@umd.edu ▪ Phone: 301-405-1406 ▪ Research Interest: Improving the Efficiency and Profitability of Dairy Cattle Production to Ensure Future Competitiveness

Ian H. Mather ▪ Email: imather@umd.edu ▪ Phone: 301-405-1380 ▪ Research Interest: Structural and Functional Analysis of the Milk Protein, Butyrophilin

Amy Ordakowski-Burk ▪ Email: amyburk@umd.edu ▪ Phone: 301-405-8337 ▪ Research Interest: Equine Nutrition

Mary Ann Ottinger ▪ Email: maotting@umd.edu ▪ Phone: 301-405-5780 ▪ Research Interest: Neuroendocrinology, Neuroethology, Reproductive Endocrinology

Robert R. Peters ▪ Email: bobp@umd.edu ▪ Phone: 301-405-1401 ▪ Research Interest: Dairy Production Management

Tom E. Porter ▪ Email: teporter@umd.edu ▪ Phone: 301-405-2516 ▪ Research Interest: Endocrinology of Growth

Estelle Russek-Cohen ▪ Email: erussek@umd.edu ▪ Phone: 301-405-1403 ▪ Research Interest: Statistical Methodology

W. Ray Stricklin ▪ Email: wrstrick@umd.edu ▪ Phone: 301-405-1374 ▪ Research Interest: Animal Behavior

Mark Varner ▪ Email: markv@umd.edu ▪ Phone: 301-405-1396 ▪ Research Interest: Reproduction of Dairy Cattle, Behavior and Management

Inder K. Vijay ▪ Email: ivijay@umd.edu ▪ Phone: 301-405-1407 ▪ Research Interest: Developmental Regulation of Mammary Glycoproteins

Dennis C. Westhoff ▪ Email: dcw@umd.edu ▪ Phone: 301-405-3273 ▪ Research Interest: Microbiology and Food Safety

L. Curry Woods III ▪ Email: curry@umd.edu ▪ Phone: 301-405-7974 ▪ Research Interest: Aquaculture

Nickolas G. Zimmermann ▪ Email: nickz@umd.edu ▪ Phone: 301-405-2805 ▪ Research Interest: Poultry Performance and Health

Regular Faculty in the Department of Veterinary Science, Virginia-Maryland Regional College of Veterinary Medicine

Robert A. Heckert ▪ Email: rheckert@umd.edu ▪ Phone: 301-314-6830 ▪ Research Interest: Use of Nucleic Acid Vaccines to Prevent Infectious Diseases in Poultry

Andrew S. Kane ▪ Email: akanel@umd.edu ▪ Phone: 301-314-6808 ▪ Research Interest: Environmental Pathology, Toxicology and Husbandry of Aquatic and Marine Organisms

Suman Mukhopadhyay ▪ Email: smukhopa@umd.edu ▪ Phone: 301-314-6812 ▪ Research Interest: Molecular and Cellular Mechanisms Regulating Host Responses to Food-borne Pathogenic Bacteria

Daniel Perez ▪ Email: dperez1@umd.edu ▪ Research Interest: Molecular Basis of Interspecies Transmission, Pathogenesis, and Cross-protection of Influenza A Viruses

Siba Samal ▪ Email: ssamal@umd.edu ▪ Phone: 301-314-6830 ▪ Research Interest: Molecular Biology and Pathogenesis of Two Economically Important Negative-strand RNA Viruses

Nathaniel L. Tablante ▪ Email: nlt@umd.edu ▪ Phone: 410-742-8788 ▪ Research Interest: Poultry Health Management, Biosecurity, and Disease Prevention

Vikram N. Vakharia ▪ Email: vakharia@umd.edu ▪ Phone: 301-405-4777 ▪ Research Interest: Molecular Biology of Economically Important Viruses of Poultry and Fish

Xiaoping Zhu ▪ Email: xzhul@umd.edu ▪ Phone: 301-314-6814 ▪ Research Interest: Molecular Immunology and Immune Regulations of Infectious Diseases

Adjunct Faculty

Murray Bakst ▪ Email: murray@anri.barc.usda.gov ▪ Phone: 301-504-8795 ▪ Research Interest: Poultry Reproductive Physiology

John McMurtry ▪ Email: mcmurtry@anri.barc.usda.gov ▪ Phone: 301-504-8803 ▪ Research Interest: Endocrinology and Growth and Development

Max Paape ▪ Email: mpaape@anri.barc.usda.gov ▪ Phone: 301-504-8302 ▪ Research Interest: Bovine Mastitis

Jon Volstad ▪ Email: jvolstad@versar.com ▪ Phone: 410-964-9200 ▪ Research Interest: Biometrics

Robert Wall ▪ Email: rwall@towson.edu ▪ Phone: 410-704-2391 ▪ Research Interest: Transgenic Biotechnology of Livestock to Improve Health and Performance

Overview of Research Areas

1. **Cell-Molecular Biology** – Research related to the synthesis and secretion of milk during growth and differentiation of the mammary gland.

Molecular investigations on gene expression of neuroendocrine system during growth and development in avian species.

Molecular genetics of mammalian metal homeostasis.

Metabolic constraints to normal growth and development of mammalian embryos created by transgenic biotechnology.

Neuroendocrinology and reproductive endocrinology in avian species.

Virology, Immunology and Microbial pathogenesis of significance to animal agriculture.

2. **Nutrition** – Ruminant and non-ruminant nutrition and metabolism.

Regulation of milk fat production in bovine.

Modeling for nutrient management.

Nutrient management in avian and other monogastric species.

Metabolic responses during refeeding of the rescued starved horse.

3. **Biometrics** – Developing new methods for evaluating and analyzing biological data.

Sampling and monitoring of natural resources including fisheries and wildlife.

Analysis of data arising in basic biology including gene expression data and other complex multivariate datasets.

Linear and non-linear models for correlated data.

4. **Behavior** – Research geared toward improving management practices, housing design, and welfare of domestic species and other animals maintained in captivity.

5. **Aquaculture** – Fish physiology, cryopreservation of germ cells, endocrine control of reproduction, and stress-induced reproductive dysfunction.

Graduate Student Life at the University of Maryland, College Park

The following information has been assembled by the graduate students in the Program. It is designed to inform the students about resources in and around the College Park campus. Other special needs of the students in the Program are also described.

Parking

There are three kinds of parking on campus: parking with a permit, parking at a meter, and parking after listed hours. One of the very **FIRST** things a student should take care of when they get to Maryland is their parking permit. Waiting too long may result in a student having to walk pretty far just to get to the Animal Science building. Permits usually begin and expire at the end of August; however, the Department of Transportation Services (DOTS) starts accepting applications for permits around May-June. This is primarily a first-come first-served system, so the sooner the better. If students are parking “after hours,” they should not assume that parking is unrestricted after 4:00 p.m.— **READ** signs carefully since the rules can differ by lot.

Parking Lots

- 1) Lot 5: This is the parking garage and is centrally located. Students need to put their name into the campus lottery in order to qualify for this permit.
- 2) Lots 9 and 11: These are the two large lots behind the Animal Science building, but they will quickly fill up when classes are in session. In that case, students could end up walking from overflow parking.
- 3) Lot 6: This is the other parking garage (not to be confused with Lot 5) located in the middle of the Comcast Center, the Recreation Center, and the Health and Human Performance building.
- 4) Lot 4: This is overflow parking where students park if there are no spaces left in their assigned lot or if DOTS runs out of permits for a requested lot.

Metered Parking (have variable maximum times)

- 1) Two spaces next to the Animal Science building near the dumpster and loading dock.
- 2) Two spaces behind the Animal Science building, where the animal wing loading dock and elevator are located. They are mixed in with the Lot CC parking.
- 3) Multiple spaces across the street from the Animal Science building and the farm, in the parking lot next to the Institute for Physical Science and Technology.
- 4) Multiple spaces near Lot 9.

Visitor Lots (more expensive than metered parking)

- 1) Paint Branch Drive Visitor Lot: located directly behind the Animal Science building; this is the closest visitor lot on campus.
- 2) Union Lane Garage: located between the Stamp Student Union and Cole Field House.
- 3) Stadium Drive Garage: located adjacent to Byrd Stadium and the Clarice Smith Center for Performing Arts.
- 4) Mowatt Lane Garage: located on the other side of campus near the Preinkert Field House.

Carpooling

Carpooling is encouraged and will reduce the price of the parking permit. The University will also help locate students within a specific zip code who wish to carpool. Unfortunately, carpooling is not very realistic for most graduate students. It might be a feasible option for those on a regular schedule, but graduate school may not be that predictable.

Motor Vehicle Administration

The Motor Vehicle Administration (MVA) has a full-service station in Beltsville. It is located at 11760 Baltimore Avenue (Route 1). It is always busy and has a poor response time. The best advice is to get there before it opens and plan to be there a while. Their hours are Monday-Friday from 8:30 a.m. to 4:30 p.m. for all services and Saturday from 8:30 a.m. to noon for Driver's License Services only. If you need to take the Driver's Road Test (you have never had a license in the U.S.), they are handled by appointment only. Call 888-212-4709, 24 hours a day, 7 days a week, to schedule an appointment. If you are trying to transfer your license to Maryland, you will need to bring personal identification as well as two forms of proof of residence (a list of what they accept is available on their website; they do not accept credit card bills). It will cost \$45 per license, this means if you have a class M (motorcycle license) or any other class, it will cost \$90 to transfer the license. Even though it is on the same card, they will charge twice because technically it is two licensures. One good thing about Maryland is that they do not have personal property tax on vehicles; they also do not do annual state inspections. However, they do have a rather expensive initial state inspection (around \$50) and emissions inspections once every other year. Proof that the car has passed the state inspection will be needed before the title can be changed to Maryland. A letter will be mailed stating when the emissions inspection must be done, so students should make sure that MVA has their correct address. There is a location finder for emissions inspection stations on the MVA website. Transferring car title and tags to Maryland should be done within 30 days of residing in state. After that, a one-time titling tax based on a car's value will be charged. There is also a fee for titling and registration (a list of these is also available on their website). Please be aware that these times, amounts, and guidelines may change. The number to contact MVA is 800-950-1MVA, and their website is www.mva.state.md.us/.

Post Offices

The post offices closest to the University of Maryland include:

1. 1.0 mi N **North College Park**, 301-345-8923, 9591 Baltimore Avenue, College Park, MD 20740
2. 1.3 mi S **College Park Post Office**, 301-699-0258, 4815 Calvert Road, College Park, MD 20740
3. 2.1 mi SW **Calvert DDC Station**, 301-209-8926, 6511 Baltimore Avenue, Hyattsville, MD 20782
4. 2.1 mi SW **Hyattsville Main Office**, 301-209-8902, 6511 Baltimore Avenue, Hyattsville, MD 20782

5. 2.2 mi SW **Riverdale Main Office**, 301-699-1253, 6411 Baltimore Avenue, Riverdale, MD 20737

Other places where stamps can be bought (besides supermarkets) include:

1. 0.0 mi E **Chevy Chase Bank**, PO Box 170 Stamp Student Union, College Park, MD 20742
2. 0.3 mi W **7-Eleven**, 301-474-7612, 8600 Baltimore Avenue, College Park, MD 20740
3. 0.3 mi W **American Express**, 8600 Baltimore Avenue, College Park, MD 20740
4. 0.8 mi E **Ahold Financial Services**, 6000 Greenbelt Road, Greenbelt, MD 20770
5. 0.8 mi E **Chevy Chase Bank**, 6000 Greenbelt Road, Greenbelt, MD 20770

More information on post offices can be found at www.usps.com/.

Banks and Insurance Agencies

Bank of America, 7370 Baltimore Avenue, College Park, MD 20740, 301-454-8412

BB&T, 9658 Baltimore Avenue, College Park, MD 20740, 301-220-1122

BB&T - ATM Location, 8951 Edmonston Road, Greenbelt, MD, 301-982-4525

BB&T - ATM Location, 9658 Baltimore Avenue, College Park, MD 20740, 301-220-1122

BB&T - Cherry Hill Beltsville, 11428 Cherry Hill Road, Beltsville, MD, 301-595-7058

BB&T – Greenbelt, 8951 Edmonston Road, Greenbelt, MD, 301-982-4525

Chevy Chase Bank - Berwyn Heights, 6107 Greenbelt Road, Berwyn Heights, MD, 301-345-2424

Chevy Chase Bank – Beltsville, 10800 Baltimore Avenue, Beltsville, MD, 301-595-1860

Chevy Chase Bank – Greenbelt, 6107 Greenbelt Road, Greenbelt, MD, 301-345-2424

Citizens Bank – Washington, D.C., 11th and G Streets, NW, Washington, D.C.

Citizens National Bank – Beltsville, Chestnut Hills Shopping Center, Beltsville, MD, 301-937-4520

Commerce Bank, 9658 Baltimore Avenue, College Park, MD 20740, 301-220-1122

Kirk & Associates, College Park, MD 20740, 301-345-0400

Royal Mortgage, College Park, MD 20740, 301-441-4700

Smear, Stephen J. (State Farm), 7307 Baltimore Avenue, College Park, MD 20740, 301-345-6667

Suntrust – Bowie ATM, 15994 Annapolis Road, Bowie, MD, 301-982-2120

Suntrust - Marlboro Crossroads ATM, 5750 Southeast Crain Highway, Upper Marlboro, MD, 301-486-7120

Suntrust – St. Charles ATM, 10 Saint Patrick’s Drive, 301-982-7830

Tai, Neville P. (State Farm), 10005 Rhode Island Ave, Suite 106, 301-474-0300

University of Maryland at College Park - Chevy Chase Bank, 301-864-8722

Apartments

The university does provide on-campus housing for graduate students in the Graduate Hills and Graduate Gardens apartment complexes; however, these cost more than apartments off campus. Information for on-campus housing can be found at www.gsg.umd.edu/student/housing.html. This site also provides information on a graduate housing co-op and a graduate housing needs assessment. A student would probably do much better on their own using the apartment-finding sites www.campusrent.com/ or www.apartmentfinder.com/.

Emergency Services

The University of Maryland website www.inform.umd.edu/about/emergency provides information on a number of emergency services, including health, building repair (on-campus), police, and telephone service. The website for the University Health Center is www.health.umd.edu/.

Off-campus health services in Maryland are numerous and include:

- **Adventist HealthCare** – www.adventisthealthcare.com
Adventist HealthCare is a non-profit, fully integrated network of hospitals, home health care agencies, senior living services, urgent care centers, sleep disorders centers, wellness and prevention programs and other health care services.
- **Anne Arundel Health System** – www.aa-healthsystem.org
Descriptions and directory information about services provided by the Anne Arundel Medical Center are the focus of this site. The Medical Center is part of the Anne Arundel Health System.

- **Bon Secours Health System** – www.bshsi.com
Directory and guide to services available at Bon Secours Hospital, Marriottsville, MD.
- **Carroll County General Hospital** – www.ccggh.com
Directory and guide to services available at the Carroll County General Hospital, Westminster, MD.
- **Dimensions Healthcare System** – www.laurelregionalthospital.org
Dimensions Healthcare System was formed in 1982 and is an integrated, not-for-profit healthcare system serving residents of Prince George’s County and the surrounding area.
- **Frederick Memorial Healthcare System** – www.fmh.org
FMH is a healthcare system located in Frederick, Maryland.
- **Good Samaritan Hospital** – www.goodsam-md.org
Located in Baltimore, Maryland, the Good Samaritan, a 271-bed adult care community teaching hospital, provides comprehensive services.
- **Greater Baltimore Medical Center - GBMC** – www.gbmc.org
GBMC is located in Baltimore MD. This website provides directory and other introductory information about services available through the hospital.
- **Holy Cross Hospital** – www.holycrosshealth.org
Located in Silver Spring, Maryland, the Holy Cross Health is part of Trinity Health. A health system comprising 47 hospitals and dozens of other healthcare organizations in seven states.
- **Hospice of the Chesapeake** – www.hospicechesapeake.org
Hospice of the Chesapeake provides medical, nursing, social work and spiritual and grief care to people with life-limiting illnesses and their loved ones.
- **Hospice of Prince George’s County** – www.hospicepg.org
The mission is to provide medical, emotional, practical and spiritual support for the terminally ill, their families and caregivers. In addition, bereavement support and counseling services are provided to the community.
- **Johns Hopkins Bayview Medical Center** – www.jhbmc.jhu.edu
The Johns Hopkins Bayview Medical Center, formerly the Francis Scott Key Medical Center, is located in Baltimore MD. This website provides directory and introductory information about the services it offers, including the Baltimore Regional Burn Center.
- **The Johns Hopkins Breast Center** – www.med.jhu.edu/breastcenter
Breast cancer treatment, research and patient support are the focus of this site. The JHU Breast Center is located in Baltimore, MD.
- **Johns Hopkins Medicine** – www.hopkinsmedicine.org
The Johns Hopkins Medical Institutions are located in Baltimore MD. This site, also known as InfoNet, provides directory and introductory information about the services available from JHMI, as well as the School of Medicine, School of Hygiene, School of Nursing and Bayview Medical Center.
- **Kennedy-Krieger Institute** – www.kennedykrieger.org
KKI provides services to children, adolescents, and young adults with disorders of the brain, including developmental disabilities and injuries. Directory information about their services is listed on this website.
- **Kernan Hospital** – www.umd.edu/kernan
Kernan Hospital is a rehabilitation facility located in Baltimore MD. It is part of the University of Maryland Medical System. The site provides directory and introductory information about the services available.

- **Laurel Regional Hospital** – www.laurelregionalhospital.org/lrh.shtml
Includes directory and services information for the Laurel Regional Hospital, located in Laurel MD, Prince George’s County. This hospital is part of the Dimensions Healthcare System.
- **Levindale Hebrew Geriatric Center and Hospital** – www.levindale.com
Levindale is part of the Sinai Health Care System. Information about Levindale’s services for the elderly is described here.
- **Mercy Medical Center** – www.mdmercy.com
Mercy Medical Center is located in Baltimore MD. It provides comprehensive health care. Mercy is covering many different specialized areas including: Women’s Health & Medicine Center, Eye and Cosmetic Surgery, The Vascular Center, The Neurosurgery Program.
- **Mid-Atlantic Non-Profit Health and Housing Association (MANPHA)** – www.manpha.org
This association includes providers who support retirement homes, assisted living, nursing homes, and senior housing. Includes links to consumer information.
- **Montgomery Hospice Society** – www.montgomeryhospice.org
This site provides information about hospice care, supportive care, bereavement services, AIDS services, volunteer opportunities, making a referral, and employment opportunities.
- **Mt. Washington Pediatric Hospital** – www.mwph.org
Mt. Washington Pediatric Hospital is located in Baltimore MD. This website includes directory and introductory information about the services offered.
- **National Institutes of Health** – www.nih.gov
NIH, part of the U.S. Public Health Service, is a biomedical research center located in Bethesda, MD. This site provides links to specific institutes (National Institute on Aging, National Library of Medicine) and to health information sources such as CancerNet.
- **Peninsula Regional Medical Center** – www.peninsula.org
Peninsula Regional offers specialty services not available elsewhere on the Eastern Shore. For 100 years, Peninsula Regional has been saving thousands of lives and enhancing the quality of life for tens of thousands of others.
- **Potomac Center** – ddamaryland.org/potomac
Potomac Center is a residential center serving people with developmental disabilities. Located in the western sector of Hagerstown, Maryland.
- **Prince George’s Hospital Center** – www.princegeorghospital.org/pghc.shtml
Includes directory and services information for the Prince George’s Hospital Center, which is located in Cheverly MD, Prince George’s County. This hospital is part of the Dimensions Healthcare System.
- **St. Agnes HealthCare - SAHC** – www.stagnes.org
St. Agnes HealthCare is a hospital located in Baltimore MD, with additional facilities in Elkridge, Catonsville, Ellicott City, and Glen Burnie. Special programs include Women’s Health and Early Heart Attack Care.
- **St. Joseph Medical Center** – www.sjmcmd.org
Directory and services information are included. The hospital is located in Towson MD.
- **Sheppard Pratt Health System** – www.sheppardpratt.org
Sheppard Pratt provides services in the greater Baltimore area for behavioral health,

mental illness and addictions. This website provides a comprehensive directory to all the services offered and their locations.

- **Shore Health System** – shorehealth.org
The Shore Health System includes the Memorial Hospital at Easton and the Dorchester General Hospital, both located on Maryland's Eastern Shore. This site offers a directory of services, medical staff and organizational information about the recently developed health system.
- **Sinai Health System** – www.sinai-balt.com
Sinai Health System, located in Baltimore MD, consists of the Sinai Hospital and the Levindale Hebrew Geriatric Center and Hospital. This website includes directory and introductory information about the services, staff and subsidiary organizations.
- **Southern Maryland Hospital** – www.ohwy.com/md/m/md210054.htm
Directory of services provided by this hospital located in Clinton, Maryland.
- **Spring Grove Hospital Center** – www.springgrove.com
Information about the services available from Spring Grove Hospital Center, a psychiatric hospital located in Catonsville, MD.
- **Suburban Hospital Healthcare System** – home.suburbanhospital.org/suburban
Directory and guide to services available at Suburban Hospital, Bethesda, MD.
- **Union Hospital** – www.uhcc.com
Union Hospital, located in Elkton, Maryland, serves residents and businesses in Cecil County, Maryland, Western New Castle County Delaware and Southern Chester County, Pennsylvania.
- **University of Maryland Medical Center** – www.umm.edu/center
The University of Maryland Medical Center, also known as University Hospital, is located in Baltimore. This website provides directory and other introductory information about the services available.
- **University of Maryland Medical System** – www.umm.edu/system
The University of Maryland Medical System (UMMS) is a private, not-for-profit hospital system with 1,652 licensed beds and more than 9,000 employees. It provides a complete range of inpatient and outpatient services to more than 300,000 patients a year.
- **University of Maryland's Women's Health** – www.umm.edu/womenscenter
This University of Maryland site brings together directory, services and research information about several UM initiatives related to women's health: UM's Center of Excellence in Women's Health; UM's Women's Health Research Group; UM's Women's Health Links; and UM's Maryland Women's Center.
- **University Specialty Hospital** – www.umm.edu/ush
University Specialty Hospital—formerly known as Deaton Specialty Hospital—serves a unique group of patients that require some of the most complex, interdisciplinary medical care available.
- **Warren Grant Magnuson Clinical Center, National Institutes of Health** – www.cc.nih.gov
Directory and service information about the Clinical Center at the National Institutes of Health, Bethesda, MD.
- **Western Maryland Health System (WMHS)** – www.wmhs.com
WMHS provides health care services in Allegany County, including Memorial Hospital, Sacred Heart Hospital and the St. Vincent de Paul Nursing Center in Cumberland.

- **Wilmer Eye Institute** – www.wilmer.jhu.edu
The Wilmer Eye Institute of Johns Hopkins University is located in Baltimore, MD. This website provides directory information about the Institute, plus an excellent set of links to other eye treatment and research institutions.

Libraries

Information concerning the University of Maryland's library can be found at www.lib.umd.edu/; however, this one is not the only game in town. Other biology/science/animal science related libraries in the area include:

1. National Agricultural Library - www.nal.usda.gov/
2. Patuxent Wildlife Research Center - www.pwrc.usgs.gov/library
3. Public libraries - www.sailor.lib.md.us/md_topics/lib/_pub.html
4. Johns Hopkins Library - webapps.jhu.edu/jhuniverse/libraries
5. Library of Congress - www.loc.gov/
6. National Library of Medicine - www.nlm.nih.gov/
7. National Oceanic and Atmospheric Administration Central Library - www.lib.noaa.gov/
8. College and university libraries - www.sailor.lib.md.us/md_topics/lib/_col.html

Supermarkets

There is a "College Park Downtown Guide" that will help in locating the closest supermarket. Brochures are available at the College Park Municipal Building, 4500 Knox Road, 301-864-8666; check out www.ci.college-park.md.us/.

University Blvd. (Route 193) has several large supermarkets (such as Shoppers Food Warehouse, Giant, Safeway, etc.) and numerous small international food markets. Directions can be found at www.mapquest.com/. For those without cars, there are Metrobuses and campus shuttles that will run to plazas, one detailed below.

Beltway Plaza

Beltway Plaza (located on Greenbelt Road about two miles northeast of campus) offers movie theaters, a Giant supermarket, a Target store, specialty shops, and restaurants. Beltway Plaza can be reached by taking the UM Shuttle to Greenbelt or Springhill Lake and getting off near Giant.

Other shopping centers include Prince George's Plaza, Wheaton Plaza, Montgomery Mall, White Flint Mall, and Georgetown Park Mall, all accessible by bus and Metro.

Current sales tax on most goods is 5% in Maryland, 4.5% in Virginia, and 5.75% in D.C.

International Food Markets

Asian Village Supermarket, 2101 University Blvd., Hyattsville, 301-422-2511.

Casa Viega Supermarket, Flower Avenue, Silver Spring, 301-587-7747.
Korean Korner, 12207 Viers Mill Road, Wheaton, 301-933-2000.
Jin Mi (Korean, Japanese), 10800 Rhode Island Avenue, Beltsville, 301-937-7171.
Middle East Market, 7006 Carroll Avenue, Takoma Park, 301-270-5154.
Thomas Market (Greek, Armenian, Arabic), 2650 University Blvd., Wheaton, 301-942-0839.
Thai Market, 902 Thayer Avenue, Silver Spring, 301-495-2779.
Silver Spring Market (Hispanic foods), 1525 University Blvd., Wheaton, 301-439-8033.

For more listings of grocery stores, look in the Yellow Pages under “Grocery”.

Animal and Avian Sciences Graduate Student Association (AASGSA)

The Animal and Avian Sciences Graduate Student Association (AASGSA) is made up of current graduate students in the Animal and Avian Sciences Department as well as those in veterinary medicine and the MEES program. AASGSA are frequently asked to provide assistance with departmental events. This past summer they held a cookout for the department, for which funding was received from the Graduate Student Government. Next year (2004), they are hoping to sell fresh-cut French fries at Ag Day as well as helping the Poultry Science Club (another club that many graduate students are a part of even if they are not doing research in the area of poultry). AASGSA also attempts to do social events as a way for students to relax, have a good time, and socialize with each other. If there are any questions about this association, please contact Ashley Peterson (abp@wam.umd.edu).

Basketball/Football Tickets

To get tickets to home basketball and football games, go to www.tickets.umd.edu/ and click on ‘SIGN IN’. Click on ‘How to sign in for the first time’ and enter the appropriate information. A student can request one student ticket for themselves for every home game. The more games a student goes to, the more loyalty points they can acquire. This is especially beneficial for attending a bowl game or the NCAA National Championships (Final Four). Tickets may typically be requested a week before the game is scheduled. Once a student has requested a ticket, they will receive an email indicating that they have been selected to receive that ticket. The student then has two days to claim the ticket online. Students should print the ticket and take that printed ticket as well as their student ID to the game to gain admission.

For football games, students are also currently allowed to purchase student guest tickets for \$15 each if extra tickets are available. Simply print these tickets as well and they will be scanned at the Student and Student Guest Gate on the north side of Byrd Stadium. Any extra information can be obtained at the above website.

The official site of Terrapin Athletics is www.umterps.ocsn.com/, which contains statistics and schedules for football, basketball, and any other UMD sport.

Local Restaurants

The University of Maryland website has a list of local restaurants at www.inform.umd.edu/campusinfo/departments/guest/visitor/localdining.html. Since this is an older list, the following are some newer local restaurants that are not included:

Noodles, Co., 7320 Baltimore Avenue, 301-779-5300, www.noodles.com/

Boston Market, 7316 Baltimore Avenue, 301-779-1820, www.bostonmarket.com/

Los Panchos, 8424 Baltimore Avenue, 301-313-0848

Chipotle Mexican Grill, 2332 Baltimore Avenue, 240-582-0015, www.chipotle.com/

Lupo's Italian Chophouse, 7416 Baltimore Avenue, 301-277-6225

Local Pizza Places

The following is a list of addresses and phone numbers for local pizza places in the College Park area. Many of these places also have websites with information on their other locations.

Alario's Pizzeria, 9204 Baltimore Avenue, #B, 301-474-3003,
www.cs.umd.edu/~pugh/fridayFacultyLunch/Alarios

Domino's Pizza, 7312 Baltimore Avenue, 301-852-3030, www.dominos.com/

Papa John's Pizza, 4509 College Avenue, 301-277-7722, www.papajohns.com/

Pizza Hut, 9015 Baltimore Avenue, 301-345-2244, www.pizzahut.com/

Ratsie's Terrapin Eatery, 7400 Baltimore Avenue, 301-864-8220,
www.cs.umd.edu/~pugh/cp-food/ratsies

Accessing Tuition Remission Online

Go to www.ares.umd.edu/

Login using the same PIN as Testudo

Click on Electronic Forms (on left column)

Click on Access My Forms (on left column)

Click on New Form (left hand corner)

Click on Tuition Remission Request

Click on Send To and enter Sheryl Grey (sg29@umail.umd.edu) as addressee

Fill in form and then send to Sheryl Grey

Campus Recreation Services

The fees a student pays each semester allows them full access to the Campus Recreation Services. Especially nice is the Campus Recreation Center (CRC) located on the Northwest Quad of campus near the Animal Science building. The Department of Campus Recreation Services (CRS) was established to provide varied programs and services that will contribute to the health and well being of the University of Maryland community. CRS has everything a student needs to stay fit, including state-of-the-art facilities and programs. Try a fitness class, learn to swim, get motivated with a personal training session, take a swim at the indoor pool, or grab some friends and try out the climbing wall. Students can work out at CRC, Ritchie Coliseum, or the Health and Human Performance (HHP) building. There are weight rooms, fitness centers, gymnasiums, martial arts rooms, pools, saunas, locker rooms, and much more. Go to www.crs.umd.edu/ to find hours of operation, facility amenities, schedule of events, and more. The CRS member services number is 301-405-PLAY.

Transportation Services

Getting to and around campus is quite easy. The University of Maryland Department of Transportation Services (www.transportation.umd.edu/) operates transit commuter service connecting most places on campus and the surrounding area. This service is free for students, faculty, and staff. To ensure that only students, faculty, and staff ride Shuttle-UM buses, all passengers are required to show a valid University of Maryland, College Park or University of Maryland, University College identification (IDs). IDs are required for all routes except evening security routes, College Park Metro, and North and South Intra-Campus Loops. If students need to go further than the surrounding area, they can catch a Metrobus on most public streets or connect with the Metrorail system by taking a Shuttle-UM bus to one of the stations.

The Washington Metropolitan Area Transit Authority (WMATA) operates the Metrorail subway system and the Metrobus system. The Metrorail system (Metro) consists of 83 stations and 103 miles of track that extend to suburban Maryland and northern Virginia, with locations at or near almost every sightseeing attraction. There are five lines in operation—Red, Blue, Orange, Yellow, and Green—with extensions planned for the future. The lines connect at several points, making transfers easy. Metro stations are indicated by discreet brown columns bearing the station's name and topped by the letter M. Below the M is a colored stripe or stripes indicating the line or lines that stop there. When entering a Metro station for the first time, go to the kiosk and ask the station manager for a free "Metro System Pocket Guide." It contains a map of the system, explains how it works, and lists the closest Metro stops to points of interest. The station manager can also answer questions about routing or purchase of farecards.

To enter or exit a Metro station, you need a computerized farecard, available at vending machines near the entrance. The minimum fare to enter the system is \$1.20, which pays for rides to and from any point within seven miles of boarding during nonpeak hours; during peak hours (Monday-Friday from 7:00-10:00 a.m. and 3:00-7:00 p.m.), \$1.20 is good for only three miles. The machines take nickels, dimes, quarters, and bills from \$1 to \$20; they can return up to \$4.95 in change (coins only). Riders who take the subway regularly will want to get a SmarTrip card from Metro for \$5. This card works like a debit card and can be scanned quickly when entering or leaving stations. Any amount of money can be put on a SmarTrip card, which eliminates the need to constantly purchase farecards. Plus, money cannot be reimbursed for lost farecards, but the value of a lost SmarTrip card will be credited by Metro.

While the Metrorail system is fairly simple, the Metrobus system is considerably more complex. Buses operate on all major D.C. arteries as well as in the Virginia and Maryland suburbs and are indicated by red, white, and blue signs. However, the signs indicate only what buses pull into a given stop, not where they go. Furthermore, the bus schedules posted at bus stops are often out of date and usually can't be relied on. Instead, for routing information call WMATA at 202-637-7000. Calls are taken Monday through Friday from 6:00 a.m. to 10:30 p.m. and on weekends and holidays from 8:00 a.m. to 10:30 p.m. This is the same number to call to request a free map and time schedule, get information about parking in Metrobus fringe lots, and find locations and hours of places where bus tokens can be purchased. Also visit their website at www.wmata.com/. Base fare is \$1.20; bus transfers are free and valid for two hours from boarding. Bus drivers are not equipped to make change, so be sure to carry exact change or tokens.

Health Care and Insurance

The University Health Center (UHC) is located on Campus Drive across from the Stamp Student Union. It offers a wide variety of services to all registered students, including urgent care, a walk-in clinic, x-ray and laboratory services, a pharmacy, an allergy clinic, HIV testing, international travel clinic, physical therapy, women's health services, orthopedics, immunizations, health education, massage therapy, acupuncture, substance abuse programs and counseling, and mental health services. The UHC is staffed by physicians, physician assistants, and registered nurse practitioners. Most visits require a \$10 co-payment. Additional fees may be charged to see a specialist or for certain procedures. Check out www.health.umd.edu/ for more information and hours.

Students are strongly encouraged to have a health insurance plan while studying at UMD for needs that cannot be met by the UHC, such as serious illness or injury. Graduate assistants are provided health insurance through the university employee health program. For students without an assistantship, MAMSI Life and Health Insurance Company provides health insurance at discounted rates for UMD students, their spouses and children. The plan is a Preferred Provider Organization (PPO). Students with MAMSI insurance can visit the UHC with no deductible or co-payment. Enrollment takes place at the beginning of each term or within 30 days of being removed from another policy. For further information and rates, check out MAMSI's website at www.mamsi.com/d/m/umd/index.jsp.

Malls

The website www.ersys.com/usa/11/1150000/mall.htm ranks malls within 40 miles of D.C. on a four-star basis and gives a listing of common stores available at each mall. For the Baltimore area, the website is www.ersys.com/usa/24/2404000/mall.htm.

Arundel Mills Mall

For nearby "outlet" shopping and specialty stores plus weekend entertainment.

Location: 7000 Arundel Mills Circle, Hanover, Maryland 21076

Directions: From I-95 take Route 100 E. to Exit 10A, Arundel Mills Blvd. From Rt. 295 (Baltimore-Washington Parkway), take Arundel Mills Blvd.

Hours of Operation: Monday-Saturday 10:00 a.m. - 9:30 p.m., Sunday 11:00 a.m. - 7:00 p.m.
www.arundelmillsmall.com/

Montgomery Mall

7101 Democracy Blvd., Bethesda, Maryland 20817, 301-469-6000.

White Flint Mall

11301 Rockville Pike, North Bethesda, Maryland 20895-1021, 301-468-5777

Directions from Baltimore: Take I-95 South to I-495 West (toward Silver Spring). Take Exit 34 (Rockville/Bethesda). Exit 34 merges into Rockville Pike/Route 355 (headed North).

White Flint is approximately 1-1/2 miles on the right.

Directions from Washington: Take Wisconsin Avenue North. It becomes Rockville Pike. White Flint is approximately 1-1/2 miles after you cross under-I-495 beltway on Rockville Pike.

www.shopwhiteflint.com/

Movie Theaters

AMC Academy 6 (6 screens)

AMC Academy 8 (8 screens)

Beltway Plaza on Greenbelt Road, Center Court, Greenbelt, MD 20770, 703-998-4AMC,

www.amctheatres.com/

*Handicapped Accessible, Hearing Impaired

Notes: Don't be confused. These two theaters are actually both located in the Beltway Plaza shopping center (same place as Giant on Greenbelt Rd.) but have separate theater entrances. They often have different movie listings, so be sure to know which theater to go to. This isn't a great area to be walking around alone at night, so traveling in groups for evening shows is recommended. During the day (before 6:00 p.m.) they offer "twilight matinee" prices, which are a real bargain and easy to make after work!

P & G Old Greenbelt (1 screen)

129 Centerway, Greenbelt, MD 20770, 301-474-9744, www.pgtheatres.com/

*Handicapped Accessible, Hearing Impaired

Notes: This old theater is an historic landmark. A blast from the past, it has real character, but don't expect surround sound and stadium seating! It plays mainly independent films and has limited showings, but go in the afternoon to catch matinee prices.

Loews Centerpark (8 screens)

4001 Powder Mill Road, Beltsville, MD 20705, 301-937-0742

*Handicapped Accessible, Hearing Impaired

Notes: This theater is relatively close to the University. Traveling on I-95, it's right at the exit for Route 212/Powder Mill Rd. It's one of the nicer theaters close to campus. Matinee prices are available before 5:00 p.m.

AMC City Place 10 (10 screens)

Colesville Road at Fenton Street, Silver Spring, MD 20910, 703-998-4AMC,

www.amctheatres.com/

*Handicapped Accessible, Hearing Impaired

Notes: Colesville Road is the same as Route 29, so this theater is right down the street from the Silver Spring Metro Station.

AFI Silver Theater Cultural Center (1 theater)

8633 Colesville Road, Silver Spring, MD 20910, 301-495-6700, www.afi.com/silver/theatre

Notes: This theater looks great from the outside – old style. It often shows older movies.

AMC Mazza Gallerie (7 screens)

5300 Wisconsin Avenue, NW, Washington, DC 20015, 202-537-9553, www.amctheatres.com/

*Handicapped Accessible, Hearing Impaired

Notes: This theater has all the modern conveniences: stadium seating, large screens, digital THX sound. The “Club Cinema” is restricted to adults 21 and older and will serve alcohol and beer during the movie. It is accessible by Metro (Friendship Heights) and offers matinee prices before 6:00 p.m.

American City Movie Diner (1 screen)

5532 Connecticut Avenue, NW, Washington, DC 20015, 202-244-1949,
members.aol.com/moviediner

Notes: This diner/movie theater offers limited diner cuisine, with the added bonus of being able to watch a movie on their outdoor patio (heated in winter). Also accessible by Metro (Friendship Heights).

CO White Flint 5 (5 screens)

White Flint Mall, 11301 Rockville Pike, Kensington, MD 20895, 202-333-FILM 785

*Handicapped Accessible

Notes: Matinee prices before 6:00 p.m. White Flint Mall is also home to Dave and Busters.

Loews Wheaton Plaza (12 screens)

Wheaton Plaza, Wheaton, MD 20902, 301-949-9200

Notes: Matinee prices before 6:00 p.m.

UA Snowden Square Stadium 14 (14 screens)

Snowden Square Shopping Center, 9161 Commerce Center Drive, Columbia, MD 21046, 800-326-3264 570

*Handicapped Accessible, Hearing Impaired

Notes: Offers stadium seating and matinee prices before 5:00 p.m.

Muvico Egyptian 24 (24 screens)

7000 Arundel Mills Circle, C-1, Hanover, MD 21076, 443-755-8992, www.muvico.com

*Handicapped Accessible, Hearing Impaired

Notes: Offers stadium seating and matinee prices before 6:00 p.m. But students should bring their IDs, because student prices apply even for evening shows. This theater is part of the Arundel Mills Mall, which is also home to Gillian’s (similar to Dave and Buster’s).

Regal Rockville Center 13 (13 screens)

199 East H. E. Montgomery Avenue, Rockville, MD 20850, 800-326-3264 248

*Handicapped Accessible, Hearing Impaired

Notes: Offers matinee prices before 6:00 p.m.

UA Bethesda (10 screens)

7272 Wisconsin Avenue, Bethesda, MD 20814, 800-326-3264 569

*Handicapped Accessible, Hearing Impaired

Notes: Offers matinee prices before 6:00 p.m.

Some Good Links:

www.fandango.com (for advanced ticket purchase and movie times)

www.movietickets.com (for advanced ticket purchase and movie times)

www.thehoya.com/eg/movies/movietheaters.cfm (describes some local theaters)

movies.yahoo.com (for movie times and listings)

Appendix A

Forms



MEMORANDUM

**TO: Graduate Education Committee
 Drs. Vijay, Samal, Mukhopadhyay, Kohn, Estevez, Christman and Angel**

FROM: _____
 (Student's Name)

SUBJECT: Approval of Advisory Committee Chair

I request that _____ be appointed Chair of my Advisory Committee.

 (Student)

 (Prospective Chair)

 (Date)

Signature	Date	Approve	Discuss	Reject
Dr. Vijay				
Dr. Samal				
Dr. Mukhopadhyay				
Dr. Kohn				
Dr. Estevez				
Dr. Christman				
Dr. Angel				



MEMORANDUM

**TO: Graduate Education Committee
 Drs. Vijay, Samal, Mukhopadhyay, Kohn, Estevez, Christman and Angel**

**FROM: _____
 (Student's Name)**

SUBJECT: Approval of Advisory Committee Members

I request that the following people be appointed as members of my Advisory Committee.

<u>Name</u>	<u>Department or Other Unit</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(NOTE: Minimum of two members of the Graduate Faculty at College Park)

Signature	Date	Approve	Discuss	Reject
Dr. Vijay				
Dr. Samal				
Dr. Mukhopadhyay				
Dr. Kohn				
Dr. Estevez				
Dr. Christman				
Dr. Angel				

THESIS OR DISSERTATION RESEARCH PROPOSAL FORM

TITLE: _____

STUDENT'S NAME: _____

DEGREE: _____

The attached research proposal has been approved by the following Advisory Committee. Signatures indicate that the proposal is acceptable for the degree sought.

DATE: _____

Advisory Committee	Signature
_____	_____ (Chair)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Student' Signature _____

**Graduate Program in Animal Sciences
Report of the Graduate Advisory Committee Meeting**

Student's Name _____

Date _____

Name _____

Signature _____ (Chair)

Name _____

Signature _____

Name _____

Signature _____

Name _____

Signature _____

Name _____

Signature _____

Name _____

Signature _____

The Graduate Advisory Committee met on the above date. The following narrative summarizes the discussion that took place.



NOMINATION OF THESIS OR DISSERTATION COMMITTEE

Important Deadlines: The Thesis and Dissertation Committee must be submitted to the Graduate Enrollment Management Services (GEMS) at least 6 weeks prior to the scheduled date for the oral examination, and before the established deadline dates.

Date: _____

--	--	--	--	--	--	--	--	--	--

Student ID Number

Print Full Name (Last, First, Middle)

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Graduate Program

Address

Degree Sought: _____

City, State, ZIP

(Area Code) Telephone

Email Address

Title of Thesis or Dissertation: _____

Are Human Subjects involved in the research? Yes No (If yes, please attach a copy of the approval from University Institutional Review Board [IRB])

Are vertebrate species (birds, mammals, fish, etc.) involved in this research? Yes No (If yes, please attach the UMCP Animal Care and Use Committee (UMCP-ACUC) form, showing protocol number and approval date)

Does this research involve hazardous materials either biological, chemical or recombinant RNA/DNA? Yes No (If yes, please attach appropriate approvals)

Expected Oral Examination Date _____ (Please note that an oral examination may not be held until the GEMS office approves the recommended committee)

List all nominees on the table provided on the reverse of this form.

Is this a New Committee Revised Committee?

If this is a revised committee, did the original committee ever meet? Yes No (If yes, please explain using a separate sheet) If the candidate failed before the original committee, please attach a letter of explanation from the Director of Graduate Studies.

Advisor (Print Name then Sign) Date Telephone extension and Email Address

Director of Graduate Program (Print Name then Sign) Date Telephone extension and Email Address

For the Director of GEMS or Designee Date

Note: Nomination for Graduate Faculty Members are available online at <http://www.gradschool.umd.edu/fellowship/forms>

Please return this form to:
Graduate Enrollment Management Services
2123 Lee Building • University of Maryland
College Park, Maryland 20742-5121
301.405.0376 Voice • 301.314.9305 FAX
grschool@deans.umd.edu

Nominated Committee

Name and Rank (or Title)	Program/Department/Place of Employment	GEMS Use Only
Chair:		
Dean's Representative (Doctoral Committees Only):		

The Master's Thesis Examination Committee:

The Committee must consist of a minimum of three members, at least two of whom must be Regular Members of the UMCP Graduate Faculty, who are on tenured or tenure-track appointments. The Chair of the Committee is the student's advisor, who must be a Regular or Adjunct Member of the Graduate Faculty, or, by special permission, has been appointed by the Dean of the Graduate School. Each member of the Committee must be a member of the Graduate Faculty of UMCP. Upon nomination by the Director of the Graduate Program and approval by the Dean of Graduate School, individuals who have been approved for Special membership in the Graduate Faculty may serve on Thesis Examining Committees. These individuals serve in addition to the two required Regular Members. To nominate a Special Member to serve, submit the nominee's curriculum vitae, a nomination form, and a letter of support from the Director of the Graduate Program. Graduate faculty who terminate employment at UMCP (and who do not have emeritus status) retain their status as members of the Graduate Faculty for twelve months, and during that time may serve as members and chairs of Thesis Examining Committees. If granted Special Member status, however, they may serve as co-chair. Professors Emeriti and Emeritae may serve on Thesis Examining Committees if they have retained their membership in the Graduate Faculty.

The Doctoral Defense Committee:

The Committee must consist of a minimum of five members, at least three of whom must be Regular Members of the UMCP Graduate Faculty who are on tenured or tenure-track appointments. Each Dissertation Examining Committee will have a chair, who must be a Regular Member of Graduate Faculty, or, by special permission, has been appointed by the Dean of the Graduate School. Each Dissertation Examining Committee must also have appointed to it a representative of the Dean of the Graduate School. The Dean's Representative should have some background or interest related to the student's research; be from a department other than the students'; and must be a tenured Member of the Graduate Faculty. Each member of the Committee must be a member of the Graduate Faculty of UMCP. Upon nomination by the Director of the Graduate Program and approval by the Dean of the Graduate School, individuals serve in addition to the three required Regular Members. To nominate a Special Member to serve, submit the nominee's curriculum vitae, a nomination form, and a letter of support from the Director of Graduate Studies. Graduate Faculty who terminate employment at UMCP (and who do not have emeritus status) retain their status as members of the Graduate Faculty for twelve months, and during that time may serve as members and chairs of Dissertation Examining Committees, but not as the Dean's Representative. If granted Special Member Status, however, they may serve as co-chairs. Professors Emeriti and Emeritae may serve on the Dissertation Examining Committees if they have retained their membership in the Graduate Faculty.

Graduate Faculty Categories

In general, Regular Members are faculty who are tenured or on tenure-track appointments. Adjunct Faculty includes the many scholars on campus in research appointments; as visiting, adjunct or affiliated professors who may appropriately serve on thesis or dissertation committees. The Special membership category recognizes outstanding scholars, including many at government agencies in the area, who may not have any official affiliation with the campus but whom UMCP welcomes to participate on thesis and dissertation committees. Special members are given a renewable two-year appointment to serve on committees.



UNIVERSITY OF MARYLAND, COLLEGE PARK
Graduate Enrollment Management Services (GEMS)



APPROVED PROGRAM FOR THE MASTER OF

Date: _____

The student named below has filed an Application for Graduation, indicating an expectation to graduate at the end of this semester. The Graduate Enrollment Management Services (GEMS) office asks you to certify that satisfactory completion of the program described on the reverse of this form will fulfill the graduate program course requirements for the master's degree specified above. (Please type or print all information)

			-				-						
--	--	--	---	--	--	--	---	--	--	--	--	--	--

Student ID Number

Print Full Name (Last, First, Middle)

--	--	--	--

Graduate Program

Address

Degree Sought: _____

City, State, ZIP

(Area Code) Telephone

Email Address

Area of Specialization

Supporting Area

Please Check One: Thesis Option Non-Thesis Option

Advisor (Print Name then Sign)

Date

Telephone Extension/Email Address

Director of Graduate Program (Print Name then Sign) Date

Telephone Extension/Email Address

Please return this form to:

Graduate Enrollment Management Services
2123 Lee Building • University of Maryland
College Park, Maryland 20742-5121
301.405.0376 Voice • 301.314.9305 FAX
grschool@deans.umd.edu

Revised 9/01

PROGRAM: Use the table on the back of this form to list ONLY courses required for the degree. (Courses in which the student received the grade of "D" or "F" are not applicable.) The program should represent ALL courses the student plans to present for the degree sought, work completed and work in progress. List transfer credit and indicate the institution where earned. Any transfer coursework must have been taken within seven years of the award of the University of Maryland, College Park Master's degree for which the student is currently enrolled. All other coursework must normally be taken within five years of the Master's degree. **Coursework older than five years at the time of graduation must be revalidated and approved by the Director of the GEMS.**

APPROVED PROGRAM

List courses in chronological order, starting with earliest credits earned.

Semester/Year	Course Prefix/Number	Course Title	Grade	Credits	Revalidation Sent (Y/N)
Total Credits					

Clearly indicate transfer/inclusion courses (if any) and list below all institutions where such courses were taken:

- 1.

- 2.

